

## ABSTRACT OF THE DISCLOSURE

A system comprising a counter adapted to monitor the memory consumption of the allocated memory resources. Upon reaching or surpassing the memory resource threshold provided, the counter may indicate the need for garbage collection. The garbage collector assesses the memory and releases memory resources that are consumed by the programs but are not needed anymore. The recycled memory resources are thus provided to the programs and the counter is updated accordingly. In addition, the system may also include instructions requesting memory resources. After detecting such instructions, the memory usage counter is updated either by the exact amount of memory allocated or the estimated amount of memory allocated. The counter may be implemented in hardware or in software.